

Abstract of the Disclosure

An antenna element 1 is formed such that a plurality of turning parts 13, 15, 17 are formed by being turned back in zigzag in parallel to a ground conductor film 2 while extending perpendicularly thereto and the lengths of segments 12, 14, 16, 18 between the turning parts are shorter on a side of the ground conductor film 2 (a side of a feeding part 4) and increase gradually as the segments are away from the ground conductor film 2. The turning parts of the antenna element 1 are formed such that the antenna resonates at two or more frequency bands, and has a fractional bandwidth of 4% or more of its frequency in a first frequency band and a fractional bandwidth of 15% or more of its frequency in a second frequency band by adjusting the lengths L_1 , L_2 and L_3 of respective segments and the intervals d_1 , d_2 and d_3 between adjacent segments. Consequently, a wideband antenna is realized in two or more multi-frequency bands, for example 2.4 to 2.5 GHz and 5 to 6 GHz, by using a single folded antenna.